

CONNECTICUT SUPREME COURT BUILDING& LIBRARY (East Wing)

Building Location: 231 Capitol Avenue Hartford, Connecticut

Date of Site Visit: 01/03/07

Field Notes, Background & General Observations

Building Type: A large 3-story municipal court building and library consisting of the original structure surrounded by and east and west wings. The existing structure was built in three major phases with multiple renovations.

Stone and masonry original construction with concrete and steel frame additions.

Material Type: Asbestos-Containing Fireproofing applied to structural steel (columns and I beams) and decking with significant overspray on walls (at roof deck interface), piping, conduit, electrical and HVAC equipment.

Fireproofing present is a vermiculite based material with a taupe colored appearance – identified as a WR Grace Monokote product.

Material Analysis: Previous bulk sample analysis by EPA/600/R-93/116 indicates fireproofing is asbestos containing

Material Location: Applied to the beams and deck throughout the 2nd and 1st floors of the east wing addition (excluding the library stack and vault areas). These spaces include primarily offices and a portion of the Colt Firearms Museum on the 2nd floor and offices, photo duplication and microfiche storage areas on the 1st floor. Although not accessible during my site visit several I-beams on the 3rd floor near the rear (south end) of the stack room are also reportedly sprayed with fireproofing.

Accessibility: Generally limited to maintenance staff and trades – fireproofing is primarily located above a suspended ceiling system comprised of a combination of concealed spline ceiling tiles and a system comprised of a metal support grid and “lay-in” style ceiling tiles. Penetrations in these ceilings (consisting of missing tiles and return air grills) provide access and fallout potential to building occupants beneath those areas.

In addition there are no drop ceilings in the electrical closets which provide open – direct access and fallout potential to all maintenance staff working in those areas.

Material Friability: Friable (easily crumbled)

Material Damage: Obvious delamination observed throughout the application (evidenced by fireproofing dust, debris and small pea to fist size chunks deposited on horizontal surfaces below deck, including ceiling tiles, HVAC ducts and light fixtures).

AHERA Assessment

Current Material Condition: Fair Overall – fireproofing generally appears to be substantially intact, however fine dust and debris are visible on most horizontal surfaces.

Physical Assessment: Friable

Damage Assessment: DAMAGED - Approximately 5 to 8% distributed damage with sporadic areas of localized damage (<25%)

Material Category: Damaged Friable Surfacing ACM

Potential for Disturbance: Moderate – in most areas the suspended ceilings serve as a barrier between the fireproofing and the work space, however, maintenance activities are performed above the ceiling on a regular basis which likely disturb both source and delaminated/dislodged fireproofing.

Freq. of Potential Contact: Moderate – in most building areas as maintenance and building occupants are aware of asbestos fireproofing in the building and know not to purposely disturb it.

Influence of Vibration: Moderate – in most areas of the office areas.

Potential for Air Erosion: Moderate – The plenum space above the suspended ceiling serves as an open air return to the HVAC system (as such low velocity air moves directly across the deteriorating fireproofing on a daily basis).

Overall Rating: Potential for Future Damage

Contamination Assessment

Dust Samples: Three micro-vacuum settled dust samples and two surface contact samples were collected and analyzed from horizontal surfaces situated directly beneath the fireproofing. Observations (relative to morphology, matrix

and color) made at the time of dust collection confirmed that the dust and debris collected in the samples were from delaminated/dislodged fireproofing applied directly above the vacuumed surface. Analysis of the dust samples indicates extreme contamination based on asbestos concentrations ranging from approximately 23.5 billion to 78.7 billion asbestos fibers per square foot. Refer to table below:

Sample #	Sample Date	General Sample Location	Sample Surface	Asbestos Structures Counted	Asbestos (Conc.) Str/Ft ²	Asbestos (Conc.) Str/Cm ²	Relative Contamination Level
1	1/3/2007	Supreme Court Bldg, East wing, 2nd floor Telephone Closet	Top of electrical panel	30	6.95×10^{10}	7.48×10^7	Extreme
2	1/3/2007	Supreme Court Bldg, East wing, 2nd floor Room L 211, adjacent to copier	Top of 1 x 1 concealed spline ceiling tile	101	2.35×10^{10}	2.53×10^7	Extreme
3	1/3/2007	Supreme Court Bldg, East wing, 1st floor Room L 103	Top of fluorescent light fixture	73	7.87×10^{10}	8.47×10^7	Extreme

Direct Prep Analysis of the three surface contact samples revealed the presence of free un-encapsulated Chrysotile asbestos fibers in each of the samples. This data confirms the release of respirable fibers from the fireproofing present in the subject building.

Sample #	Sample Date	General Sample Location	Sample Surface	Sample Area	Free Asbestos Fibers Observed
A	1/3/2007	Supreme Court Bldg, East wing, 1st floor Room L 103	Top of fluorescent light fixture	47 mm	Yes
B	1/3/2007	Supreme Court Bldg, East wing, 2nd floor Telephone Closet	Top of metal HVAC duct	47 mm	Yes

Photographs: **CONNECTICUT SUPREME COURT BUILDING**

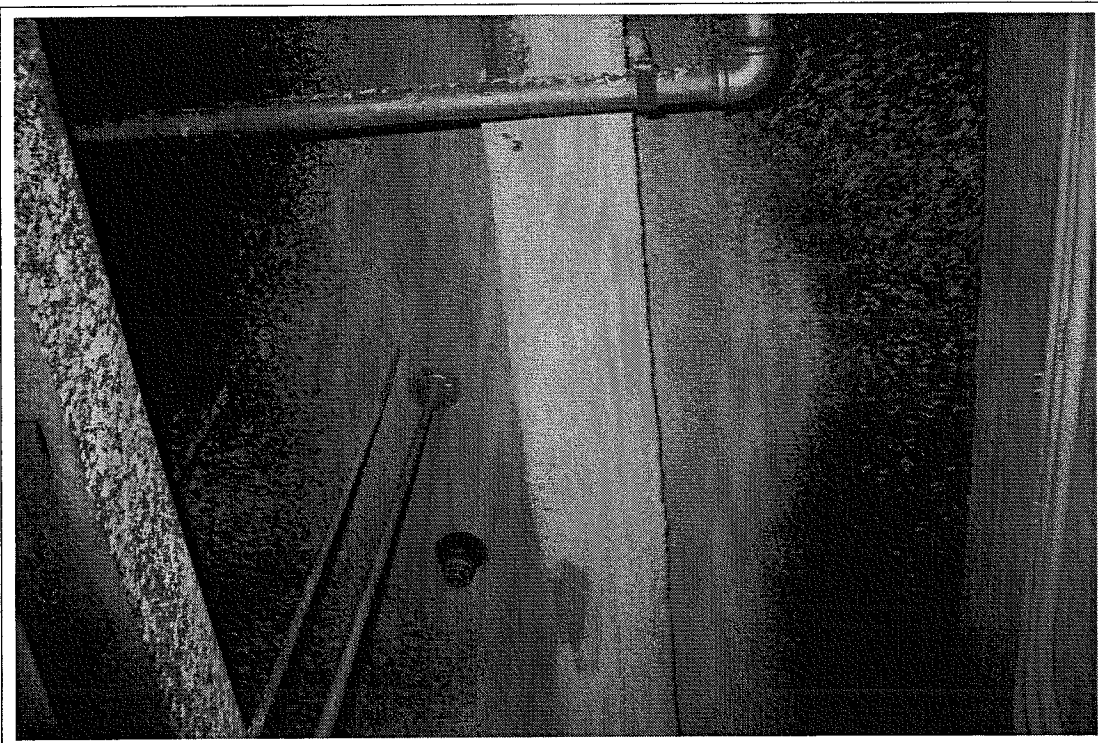


Photo 141. General view of fireproofing applied to I-beam with overspray on decking, HVAC duct work and hanger supports in the East wing, 2nd floor Telephone Closet

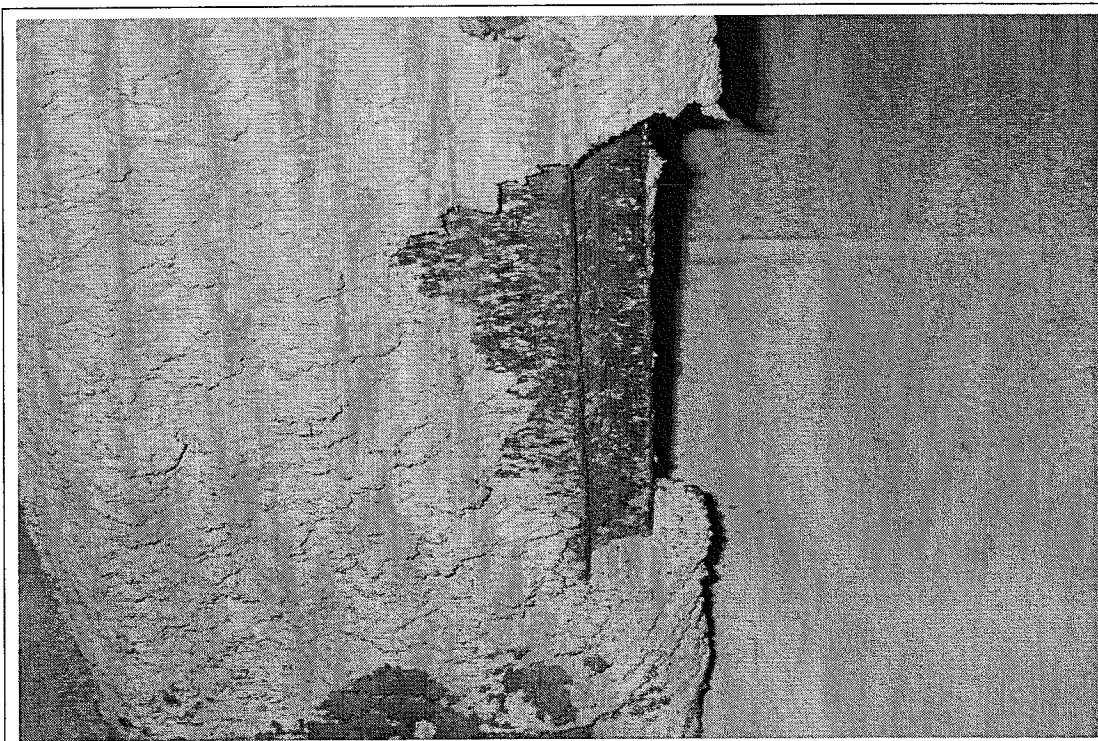


Photo 142. Close-up of delaminated fireproofing missing from I-beam in the East wing, 2nd floor Telephone Closet



Photo 143. Close-up of delaminated fireproofing debris on top of incandescent light fixture in the East wing, 2nd floor Telephone Closet

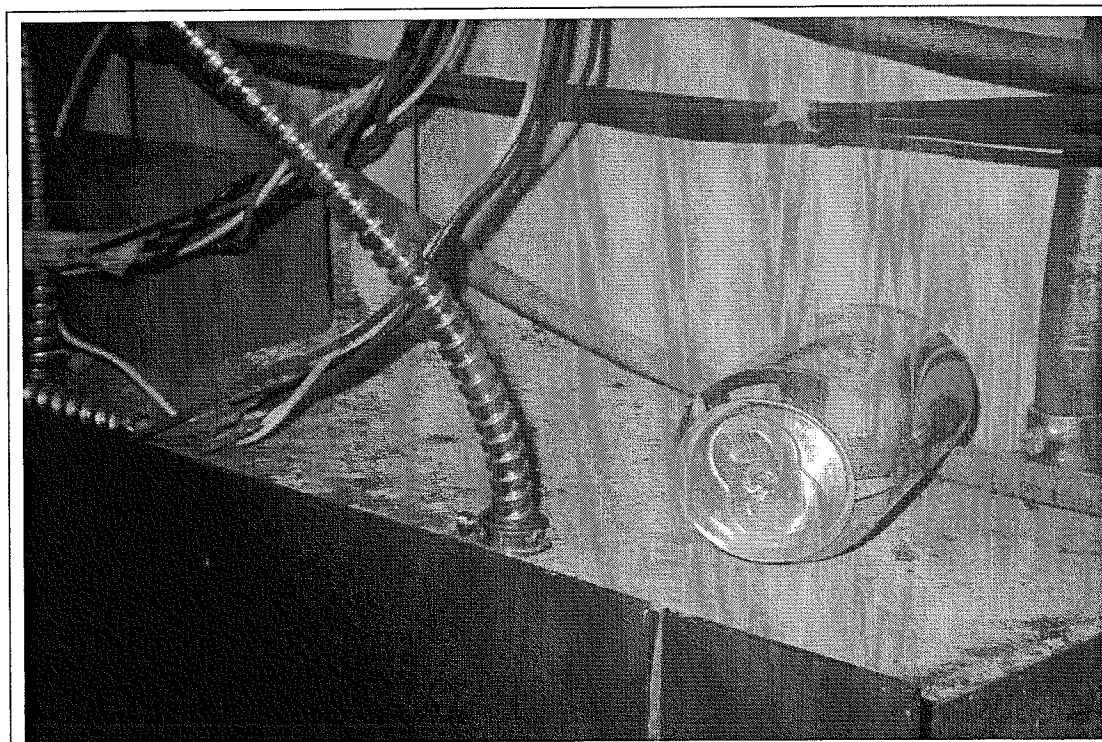


Photo 144. Location of Dust Sample #1 (top of electrical panel – beneath sprayed fireproofing) in the East wing, 2nd floor Telephone Closet

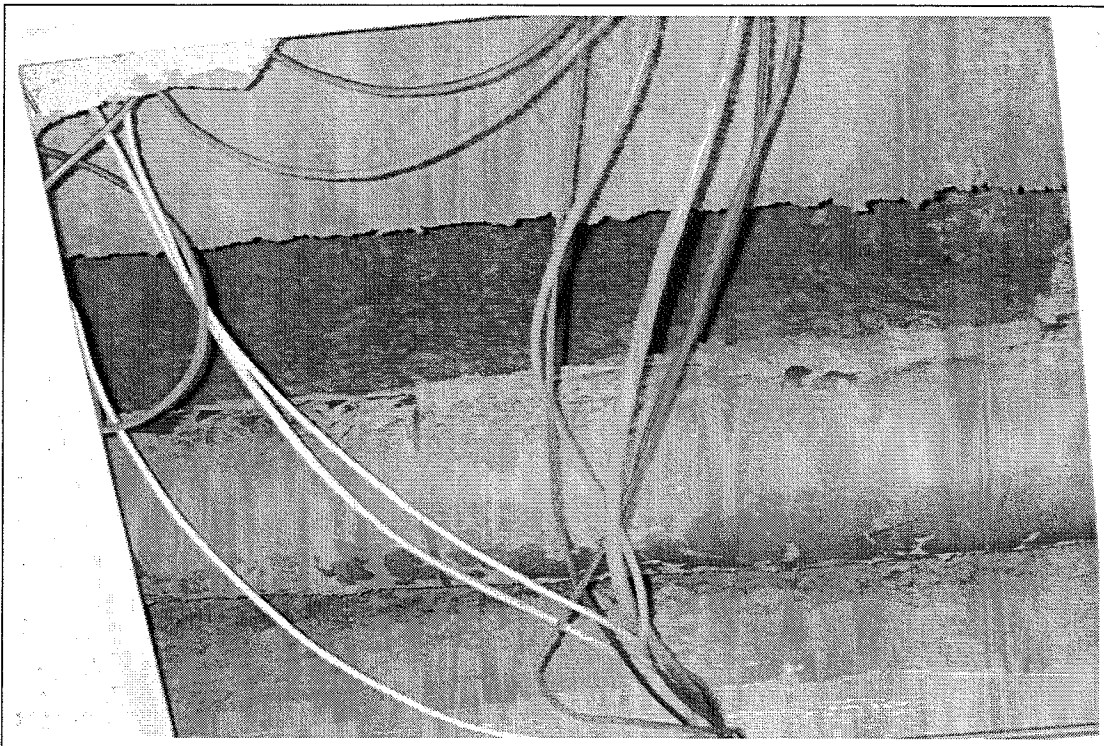


Photo 145. View of fireproofing applied to I-beam and perimeter wall with overspray on piping above missing lay-in style ceiling tiles, East wing, 2nd floor South entrance vestibule

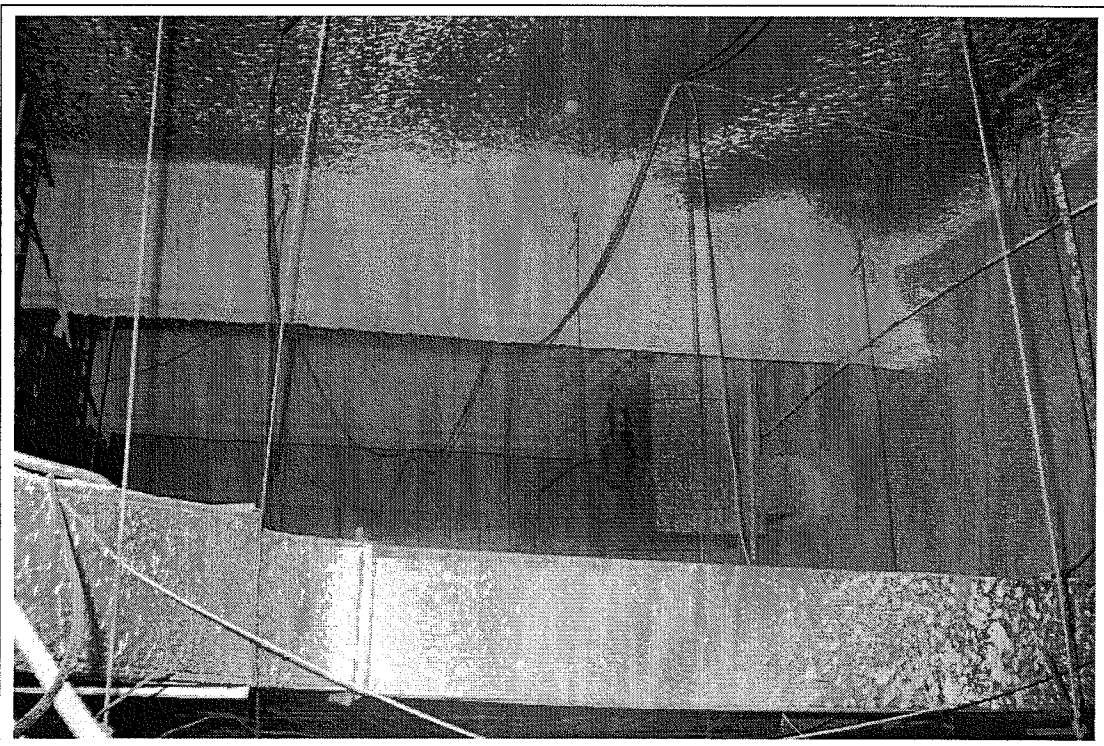


Photo 146. General view of fireproofing applied to I-beams and perimeter wall with overspray on ductwork above concealed spline ceiling system, East wing, 2nd floor Room L 211